Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently amended) A computed tomography apparatus which includes;

a radiation source ~~(S),~~ ;

a detector arrangement ~~(16)~~ ; and

a device with which transmission radiation ~~(41a)~~ having traversed an examination zone is attenuated ~~can be stopped at least to~~ such ~~an extent~~ that its intensity ~~which is~~ incident on the detector arrangement ~~(16)~~ does not significantly exceed the intensity of radiation ~~(41b)~~ scattered in the examination zone ~~(13)~~ and incident on the detector arrangement ~~(16)~~.

2. (Currently amended) [[A]] The computed tomography apparatus as claimed in claim 1, in which the radiation source ~~(S)~~ is arranged to form an essentially fan-shaped radiation beam ~~(41)~~ and the detector arrangement ~~(16)~~ comprises a plurality of detector elements which are arranged in rows and columns in conformity with the length and the width, respectively, of the cross-section of the radiation beam ~~(41)~~ in the detector plane.

3. (Currently amended) [[A]] The computed tomography apparatus as claimed in claim 1, in which the detector arrangement ~~(16)~~ comprises a plurality of detector elements which are arranged in a row.

4. (Currently amended) [[A]] The computed tomography apparatus as claimed in claim 1, in which the device includes a first collimator ~~(31)~~ which is arranged on the radiation source ~~(S)~~, the radiation source ~~(S)~~ or the first collimator ~~(31)~~ being arranged so as to be offset relative to one another in a direction perpendicular to a propagation direction of the radiation beam ~~(41)~~ in such a manner that the transmission radiation ~~(41a)~~ having traversed ~~the~~ an object to be examined in the examination zone ~~at least~~ is not incident to a significant extent on the detector arrangement ~~(16)~~.

5. (Currently amended) [[A]] The computed tomography apparatus as claimed in claim 4, in which the device includes a first drive unit ~~(31a)~~ for displacing the radiation source ~~(S)~~ or the first collimator ~~(31)~~ relative to one another in such a manner that only scattered radiation ~~(41b)~~ emanating from the object ~~(13)~~ to be examined in the examination zone at different angles ~~can be~~ is detected.

6. (Currently amended) [[A]] The computed tomography apparatus as claimed in claim 1, in which the device includes a second collimator ~~(32)~~ which is arranged between the ~~object (13) to be examined~~ examination zone and the detector arrangement ~~(16)~~ and includes a region ~~(321)~~ whereby the transmission radiation ~~(41a)~~ having traversed the object to be examined in the examination zone is partly stopped ~~at least partly~~.

7. (Currently amended) [[A]] The computed tomography apparatus as claimed in claim 6, in which the region ~~(321)~~ is provided with an opening wherethrough a part of the transmission radiation ~~(41a)~~ incident on the region ~~(321)~~ reaches the detector arrangement ~~(16)~~.

8. (Currently amended) [[A]] The computed tomography apparatus as claimed in claim 1, in which the device is formed by a detector arrangement ~~(16)~~ which is positioned so as to be shifted in a direction perpendicular to a propagation direction of the radiation beam ~~(41)~~ in such a manner that the radiation ~~(41a)~~ having traversed the object to be examined in the examination zone is directed at least substantially so ~~as~~ that the transmission radiation bypasses ~~to bypass~~ the detector arrangement ~~(16)~~.

9. (Currently amended) [[A]] The computed tomography apparatus as claimed in claim 8, in which the device includes a second drive unit ~~(32a)~~ for displacing the detector arrangement ~~(16)~~ in such a manner that only scattered radiation ~~(41b)~~ emanating from the object ~~(13)~~ to be examined in the examination zone at different angles ~~can be~~ is detected.

10. (New) A computed tomography apparatus, comprising:

a radiation source;

a detector arrangement; and

a device with which radiation having traversed an examination zone is stopped at least to such an extent that its intensity which is incident on the detector arrangement does not significantly exceed the intensity of radiation scattered in the examination zone and incident on the detector arrangement, wherein the device includes a drive unit for displacing the detector arrangement in such a manner that scattered radiation emanating from an object to be examined in the examination zone at different angles is detected.

11. (New) A method, comprising:

attenuating transmission radiation within a radiation beam after the beam traverses an examination zone, wherein the attenuated transmission radiation has an intensity that is about the same as an intensity of scatter radiation; and

detecting the attenuated transmission radiation and the scatter radiation with a detector.

12. (New) The method of claim 11, further including directing the transmission radiation to bypass the detector.

13. (New) The method of claim 11, further including selectively positioning a source collimator with respect to a radiation source to direct the beam so that the transmission radiation bypasses the detector.

14. (New) The method of claim 11, further including selectively positioning a radiation source with respect to a source collimator to direct the beam so that the transmission radiation bypasses the detector.

15. (New) The method of claim 11, wherein the transmission and scatter radiation are concurrently detected during a data acquisition cycle.

16. (New) The method of claim 11, further including attenuating the transmission radiation using a material having a thickness configured to attenuate the transmission radiation so that its intensity is about the same as the intensity of scatter radiation.

17. (New) The method of claim 11, wherein attenuating the transmission radiation includes collimating the transmission radiation so that only part of the transmission radiation illuminates the detector.

18. (New) The method of claim 11, further including positioning the detector so that only scatter radiation illuminates the detector.

19. (New) The computed tomography apparatus of claim 1, wherein the intensity of the attenuated transmission radiation is greater than the intensity of the scattered radiation.

20. (New) The computed tomography apparatus of claim 1, wherein the intensity of the attenuated transmission radiation is non-zero.